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FIVE YEAR REVIEW REPORT

NL INDUSTRIES/TARACORP SITE
GRANITE CITY, ILLINOIS

Pursuant to CERCLA

Prepared by:
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Region 5
Chicago, Illinois

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Date

I. INTRODUCTION

A. Authority and Purpose

Section 121© of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), as amended by SARA and Section 300.430(f) (4) (ii) of the National Contingency Plan (NCP), require that periodic (no less often than five years) reviews are to be conducted for sites where hazardous substances, pollutants or contaminants remain at the site above levels that will not allow for unlimited use or unrestricted exposure following implementation of remedial actions for the site. The purpose of a statutory five-year review is to evaluate whether the remedial action remains protective of human health and the environment. This review focuses on the protectiveness of the NL Industries/Taracorp Superfund Site, located in Granite City, Illinois (the Site). This review will be placed in the Site files and local repository for the Site.

The United States Environmental Protection Agency (EPA) has established a three-tier (with a sub-tier for Tier I, as Ia) approach to conducting Five-Year Reviews, the most basic of which provides a minimum protectiveness evaluation for sites with on-going response actions at the site (Level Ia review). U.S. EPA contemplates that a Level I review will be appropriate in all but relatively few cases where site-specific considerations suggest otherwise. The second and third levels (Level II and Level III) of review are intended to provide the flexibility to respond to varying site-specific considerations, employing further analysis. Site specific considerations, including the nature of the response action, the status of the on-site response activities, and the proximity to populated areas and sensitive environmental areas determine the level of review for a given site. The Type Ia review conducted for this site is applicable to a site at which response is ongoing.

B. Site History

The industrial portion of the Site is located at 16th Street and Cleveland Blvd. in Granite City, Illinois. The Site occupies 15.9 acres, including a 3.5 acre slag pile. Operations at the Site have included metal refining, fabricating, and related activities since the turn of the century. The facility began operation as Hoyt Metal in 1903. It was later sold, and became United Lead. NL Industries purchased United Lead in 1928 and operated the facility until 1979 when it was purchased by Taracorp, Inc. Taracorp, Inc. operated the smelter until 1983, at which time Taracorp filed for bankruptcy and the smelting furnace was dismantled. Metallico, Inc., which purchased the Site in 1997, currently operates a metal fabrication facility at the Site. Site activities resulted in contamination of the Site and surrounding areas in four ways: the slag, broken battery casings, and other debris associated with operating the secondary smelter created several waste piles, the largest of which is 3.5 acres (Taracorp pile); the smelter stack emitted tons of lead over several decades that settled into the nearby communities and contaminated an area that spans nearly 100 blocks; crushed, hard rubber battery casings were sold as fill material and used in at least 100 locations, including alleys, driveways, and parking lots, in the

surrounding communities; and the ground water was contaminated with lead and other heavy metals as a result of leaching from the site, primarily from the Taracorp pile.

A consent order to carry out a Remedial Investigation and Feasibility Study (RI/FS) was signed by NL Industries in May 1985. NL Industries completed the RI/FS in August 1989; however, EPA disagreed with the conclusions of the FS Report, including the suggested cleanup level for lead in residential soils. At about this time, NL Industries submitted numerous documents that detailed transactions with hundreds of Potentially Responsible Parties (PRPs) between 1970 and 1979. Taracorp then submitted documentation of its transactions from 1979 to 1983. EPA wrote an addendum to the FS Report, and a Record of Decision (ROD) was signed on March 30, 1990. After reviewing the remedy per the request of the court, EPA issued a Decision Document/Explanation of Significant Differences (DD/ESD) on September 29, 1995. The DD/ESD basically reaffirmed the remedy in the ROD, with the exception of adding in requirements for containment of contaminated ground water, which was not detected in monitoring wells until 1992.

After negotiations for a Remedial Design(RD)/Remedial Action (RA) Consent Decree broke down, EPA issued a Unilateral Administrative Order (UAO) to 49 of the PRPs in November 1990. None of the Respondents to the UAO provided EPA with an acceptable notice of intent to comply, so EPA pursued the RD and RA for the Site using Superfund money. In July 1991, the United States sued nine of the PRPs to compel them to perform the selected remedy, reimburse EPA for response costs, and pay penalties for non-compliance with the UAO. This matter is still pending in court. EPA spent approximately $44,000,000 cleaning up the Site until July 1998, when the generator defendants took over the remainder of the work from EPA. EPA is currently negotiating a Consent Decree with the generator defendants to finish the RA and reimburse EPA for a portion of its past costs. No settlement has been reached with NL Industries to recover the remainder of EPA's costs.

II. DISCUSSION

A. Remedial Objectives

The remedial action goals of the ROD for the Site were to minimize risks to public health and the environment from ingestion and inhalation of lead-contaminated soils and wastes and to contain the contaminated ground water. The remedy selected to meet these objectives, as outlined in the ROD and DD/ESD included:

- Excavation of all residential yards impacted by smelter stack emissions and battery chip fill materials with lead concentrations exceeding 500 parts per million (ppm);
- Consolidation of soils and waste materials on the main industrial area that exceed 1000 ppm lead with the Taracorp pile, and capping of the resultant expanded pile; and
- Containment of contaminated ground water.

B. Remedial Construction

Remedial Construction Activities

EPA commenced remedial construction, via the U.S. Army Corps of Engineers' Rapid Response Program, on March 15, 1993. As stated above, the generator defendants took over the work from EPA in July 1998. Collectively, the EPA and generator defendants have accomplished the following:

- Excavation of over 1250 residential lots that exceeded 500 ppm lead, including disposal of all excavated soil and restoration of the lots with clean fill and sod;
- Excavation of approximately 100 lots, alleys, driveways, and parking lots that contained hard rubber battery case material and exceeded 500 ppm lead, including disposal of all excavated soil and restoration of the lots, alleys, driveways, and parking lots; and
- Design of the cap for the Taracorp pile.

Work remaining at the Site includes excavation and restoration of approximately 250 additional residential lots (expected completion is August 31, 1999); excavation or paving of approximately 25 additional alleys and lots with battery casing fill (expected completion is December 31, 1999); capping of the Taracorp pile (expected completion is December 31, 1999); and design and construction of the ground water containment system (expected completion is September 30, 2000). Dust control was implemented during all excavation, loadout, and hauling activities. Monitored dust emissions never exceeded the National Ambient Air Quality Standard (NAAQS) for lead with the exception of several days in 1993 where the background level upwind of the work area exceeded the NAAQS for lead.

III. RECOMMENDATIONS

I recommend that the remaining work listed above be completed, which should result in the completion of all remedial construction activities by September 30, 2000.

IV. STATEMENT ON PROTECTIVENESS

I certify that the remedy selected for this site remains protective of human health and the environment.

V. NEXT FIVE-YEAR REVIEW

The next five-year review will be conducted by March 30, 2003, which is ten years from the date that the remedial action started.